

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of: Goodman et al.

Group Art Unit: 1644

Serial No. 08/971,172

Examiner: S. Turner

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For: *Robo: A Novel Family of Polypeptides
and Nucleic Acids*

SEP 14 2000

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T-217

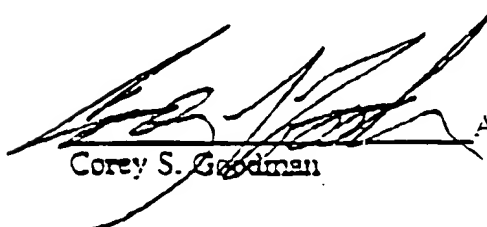
SUPPLEMENTAL DECLARATION UNDER 37 CFR 1.131

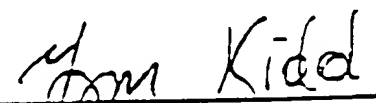
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Washington D.C. 20231

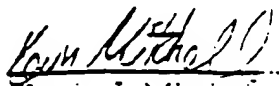
Dear Commissioner:


1. We are coinventors of the subject patent application.
2. Attached is a photocopy of a 5 page alignment including our U88183 sequence, which is identical to SEQ ID NO:6 of the subject patent application. We determined this U88183 sequence and prepared the alignment prior to April 1997. This work was performed in the United States.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


Corey S. Goodman Aug 30, 2000


Thomas Kidd Aug 30, 2000


Kevin J. Mitchell Aug 30, 2000


Guy Teaz Aug 30, 2000

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M . . . . . Consensus #1
      10      20      30
1  M Y - - - - - Y L G F Y H T H T H T Y I N F D K I P N U88183 composite pep
1  M F N R K T L L C T I L L V L Q A V I R S F C E - - - - - D W-Robo pep

      40      50      60
      A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K Consensus #1
25  A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K U88183 composite pep
26  A S N L A P V I I E H P I D V V V S R G S P A T L N C G A K W-Robo pep

      70      80      90
      P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D Consensus #1
55  P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D U88183 composite pep
56  P S T A K I T W Y K D G Q P V I T N K E Q V N S H R I V L D W-Robo pep

     100     110     120
     T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E Consensus #1
85  T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E U88183 composite pep
86  T G S L F L L K V N S G K N G K D S D A G A Y Y C V A S N E W-Robo pep

     130     140     150
     H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L Consensus #1
115 H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L U88183 composite pep
116 H G E V K S N E G S L K L A M L R E D F R V R P R T V Q A L W-Robo pep

     160     170     180
     G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R Consensus #1
145 G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R U88183 composite pep
146 G G E M A V L E C S P P R G F P E P V V S W R K D D K E L R W-Robo pep

     190     200     210
     I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C Consensus #1
175 I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C U88183 composite pep
176 I Q D M P R Y T L H S D G N L I I D P V D R S D S G T Y Q C W-Robo pep

     220     230     240
     V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D Consensus #1
205 V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D U88183 composite pep
206 V A N N M V G E R V S N P A R L S V F E K P K F E Q E P K D W-Robo pep

     250     260     270
     M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E Consensus #1
235 M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E U88183 composite pep
236 M T V D V G A A V L F D C R V T G D P Q P Q I T W K R K N E W-Robo pep
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		P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V	Consensus #1
		280 290 300	
265		P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V	U88183 composite pep
266		P M P V T R A Y I A K D N R G L R I E R V Q P S D E G E Y V	W-Robo pep
		C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D	Consensus #1
		310 320 330	
295		C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D	U88183 composite pep
296		C Y A R N P A G T L E A S A H L R V Q A P P S F Q T K P A D	W-Robo pep
		Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q	Consensus #1
		340 350 360	
325		Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q	U88183 composite pep
326		Q S V P A G G T A T F E C T L V G Q P S P A Y F W S K E G Q	W-Robo pep
		Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q	Consensus #1
		370 380 390	
355		Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q	U88183 composite pep
356		Q D L L F P S Y V S A D G R T K V S P T G T L T I E E V R Q	W-Robo pep
		V D E G A Y V C A G M N S A G S S L S K A A L K . T	Consensus #1
		400 410 420	
385		V D E G A Y V C A G M N S A G S S L S K A A L K A T F E T K	U88183 composite pep
386		V D E G A Y V C A G M N S A G S S L S K A A L K V T - - - -	W-Robo pep
	 A V T	Consensus #1
		430 440 450	
415		G R V Q K K K S K M G K Q K Q K N V Q S I I K Y L I S A V T	U88183 composite pep
412		- - - - - T K A V T	W-Robo pep
		G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C	Consensus #1
		460 470 480	
445		G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C	U88183 composite pep
417		G N T P A K P P P T I E H G H Q N Q T L M V G S S A I L P C	W-Robo pep
		Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S	Consensus #1
		490 500 510	
475		Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S	U88183 composite pep
447		Q A S G K P T P G I S W L R D G L P I D I T D S R I S Q H S	W-Robo pep
		T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W	Consensus #1
		520 530 540	
505		T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W	U88183 composite pep
477		T G S L H I A D L K K P D T G V Y T C I A K N E D G E S T W	W-Robo pep

		S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q	Consensus #1
		550 560 570	
535		S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q	U88183 composite pep
507		S A S L T V E D H T S N A Q F V R M P D P S N F P S S P T Q	W-Robo pep
		P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I	Consensus #1
		580 590 600	
565		P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I	U88183 composite pep
537		P I I V N V T D T E V E L H W N A P S T S G A G P I T G Y I	W-Robo pep
		I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K	Consensus #1
		610 620 630	
595		I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K	U88183 composite pep
567		I Q Y Y S P D L G Q T W F N I P D Y V A S T E Y R I K G L K	W-Robo pep
		P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S	Consensus #1
		640 650 660	
625		P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S	U88183 composite pep
597		P S H S Y M F V I R A E N E K G I G T P S V S S A L V T T S	W-Robo pep
		K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K	Consensus #1
		670 680 690	
655		K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K	U88183 composite pep
627		K P A A Q V A L S D K N K M D M A I A E K R L T S E Q L I K	W-Robo pep
		L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I	Consensus #1
		700 710 720	
685		L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I	U88183 composite pep
657		L E E V K T I N S T A V R L F W K K R K L E E L I D G Y Y I	W-Robo pep
		K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M	Consensus #1
		730 740 750	
715		K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M	U88183 composite pep
687		K W R G P P R T N D N Q Y V N V T S P S T E N Y V V S N L M	W-Robo pep
		P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L	Consensus #1
		760 770 780	
745		P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L	U88183 composite pep
717		P F T N Y E F F V I P Y H S G V H S I H G A P S N S M D V L	W-Robo pep
		T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P	Consensus #1
		790 800 810	
775		T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P	U88183 composite pep
747		T A E A P P S L P P E D V R I R M L N L T T L R I S W K A P	W-Robo pep

K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N Consensus #1
820 830 840
805 K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N U88183 composite pep
777 K A D G I N G I L K G F Q I V I V G Q A P N N N R N I T T N W-Robo pep

E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G Consensus #1
850 860 870
835 E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G U88183 composite pep
807 E R A A S V T L F H L V T G M T Y K I R V A A R S N G G V G W-Robo pep

V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y Consensus #1
880 890 900
865 V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y U88183 composite pep
837 V S H G T S E V I M N Q D T L E K H L A A Q Q E N E S F L Y W-Robo pep

G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W Consensus #1
910 920 930
895 G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W U88183 composite pep
867 G L I N K S H V P V I V I V A I L I I F V V I I I A Y C Y W W-Robo pep

R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D Consensus #1
940 950 960
925 R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D U88183 composite pep
897 R N S R N S D G K D R S F I K I N D G S V H M A S N N L W D W-Robo pep

V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L Consensus #1
970 980 990
955 V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L U88183 composite pep
927 V A Q N P N Q N P M Y N T A G R M T M N N R N G Q A L Y S L W-Robo pep

T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A Consensus #1
1000 1010 1020
985 T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A U88183 composite pep
957 T P N A Q D F F N N C D D Y S G T M H R P G S E H H Y H Y A W-Robo pep

Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L Consensus #1
1030 1040 1050
1015 Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L U88183 composite pep
987 Q L T G G P G N A M S T F Y G N Q Y H D D P S P Y A T T T L W-Robo pep

V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P Consensus #1
1060 1070 1080
1045 V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P U88183 composite pep
1017 V L S N Q Q P A W L N D K M L R A P A M P T N P V P P E P P W-Robo pep

Alignment Report of Untitled, using Clustal method with PAM250 residue weight table.

		ARYADHTAGRRSRSSRASDGRGTLNGGLHH	Consensus #1
	1090	1100	1110
1075		ARYADHTAGRRSRSSRASDGRGTLNGGLHH	U88183 composite pep
1047		ARYADHTAGRRSRSSRASDGRGTLNGGLHH	W-Robo pep
		RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS	Consensus #1
	1120	1130	1140
1105		RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS	U88183 composite pep
1077		RTSGSQRS DSPPH TDVSYVOLHSSDGTGSS	W-Robo pep
		KERTGERRTPPNKTLMDFI PPPSNPPPPG	Consensus #1
	1150	1160	1170
1135		KERTGERRTPPNKTLMDFI PPPSNPPPPG	U88183 composite pep
1107		KERTGERRTPPNKTLMDFI PPPSNPPPPG	W-Robo pep
		GHVYD TATRRQLNRGSTPREDTYDSV	Consensus #1
	1180	1190	1200
1165		GHVYD - - - - TATRRQLNRGSTPREDTYDSV	U88183 composite pep
1137		GHVYD D I F Q TATRRQLNRGSTPREDTYDSV	W-Robo pep
		SDGAFARVDVNARPTSRNRNLGGRPLKGKR	Consensus #1
	1210	1220	1230
1191		SDGAFARVDVNARPTSRNRNLGGRPLKGKR	U88183 composite pep
1167		SDGAFARVDVNARPTSRNRNLGGRPLKGKR	W-Robo pep
		DDDSQSRSSLMMDDDDGGSSEADGENSEGDVP	Consensus #1
	1240	1250	1260
1221		DDDSQSRSSLMMDDDDGGSSEADGENSEGDVP	U88183 composite pep
1197		DDDSQSRSSLMMDDDDGGSSEADGENSEGDVP	W-Robo pep
		RGGVRKAVPRMGISASTLAHSCYGTNGTAQ	Consensus #1
	1270	1280	1290
1251		RGGVRKAVPRMGISASTLAHSCYGTNGTAQ	U88183 composite pep
1227		RGGVRKAVPRMGISASTLAHSCYGTNGTAQ	W-Robo pep
		RFRSIPRNNGIIVTQEQ . .	Consensus #1
	1300		
1281		RFRSIPRNNGIIVTQEQ - T	U88183 composite pep
1257		RFRSIPRNNGIIVTQEQ T .	W-Robo pep

Consensus 'Consensus #1': When all match the residue of the Consensus show the residue of the Consensus, otherwise show '.'.

Decoration 'Decoration #1': Shade (with solid black) residues that match the consensus named 'Consensus #1' exactly.